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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/491,284 01/26/00 GITIS

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EXAMINER

WM02/1205

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ART UNIT

PAPER NUMBER

2652

DATE MAILED:

12/05/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/491,284

Applicant(s)
Gitis et al

Examiner
David Ometz

Group Art Unit
2652



☒ Responsive to communication(s) filed on Sep 26, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-69 is/are pending in the application.

Of the above, claim(s) 5-9 and 40-69 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-4 and 10-39 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. Applicant's election with traverse of Group I in Paper No. 7 is acknowledged. The traversal is on the ground(s) that "There must be a serious burden on the examiner if the restriction is required" and that the examiner "must show by appropriate explanation one of the following: (A) separate classification thereof; (B) a separate status in the art when they are classifiable together; or (C) a different field of search." This is not found persuasive because the restriction requirement on 9/11/2000 was based upon species under a genus being independent from one another. Applicant's attention is directed to the last three lines of MPEP section 803 which refers one to other sections of the MPEP relating to species-genus restriction practice. Specifically, MPEP section 803 refers one to MPEP section 808.01(a) which relates to species-type restrictions between independent inventions where it is set forth that "it is not necessary to show a separate status in the art or separate classification." Therefore, the Examiner has not erred in failing to provide reasons for separate status in the art or separate classification. Secondly, the undue burden upon the Examiner would be the unduly extensive and burdensome search performed in searching for two separate and distinct inventions.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5-9, 40-69 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations set forth in each of

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claims 13, 16, 19, 22, 25, 27, 29, and 30 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. Claims 2-4, 10-39 are objected to because of the following informalities: in each of claims 2, 3, 4, 10, 27, 29, and 31, --general-- should be inserted before each occurrence of "direction". Appropriate correction is required.

5. Claims 29, 38, and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 29, the inclusion of "a width" in lines 1 and 3 creates confusion because the widths have already been set forth in claim 10, thus creating a double inclusion of elements.

Claims 38 and 39 both set forth that the pad "maintains near-contact with the medium." However, claim 10 (from which claims 38 and 39 directly depend from) sets forth "a pad which maintains substantially continuous contact with the medium." Therefore, it is not seen how the pad can be both in continuous contact with the medium and also be flying above the medium at the same time.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. Claims 10, 38, 39 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Fukuoka et al (US Pat 5541789) (see Fig. 7).

8. Claims 1, 2, 10-12, 17, 18, 26, 31, 33-37 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Brezoczky et al (US Pat 4819091) (see Figs. 2 and 5).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 13, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brezoczky et al. Brezoczky et al shows a V-shaped slider/pad in Figure 5 that contacts the recording disk during reading/writing. However, Brezoczky et al does not show the wide part of the V-shaped portion being spaced from the trailing edge of the pad. The Examiner takes Official notice that it is old and well known in the art to space the trailing edge of a slider pad from the trailing edge. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to space the pad from the trailing edge as doing this would decrease the amount of contact between the disk and pad, thus creating less friction and wear therebetween.

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11. Claims 3, 4, 14-16, 20-25, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brezoczky et al in view of Fukuoka et al. Brezoczky et al shows a V-shaped slider/pad in Figure 5 that contacts the recording disk during reading/writing. However, Brezoczky et al does not show the pad being U-shaped, parabolic shaped or hyperbolic-shaped wherein the wide part of the pad is spaced from the trailing edge. With regard to the specific shape, Fukuoka et al shows a U-shaped pad in Figure 7 wherein Fukuoka et al states in col. 10, lines 30-32 that the pad may be "a parabola, circle, or oval." Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to re-shape the pad of Brezoczky et al into one of a U-shape, parabolic, or hyperbolic shape as taught by Fukuoka et al. The rationale is as follows: one of ordinary skill in the art would have been motivated re-shape the V-shaped pad of Brezoczky et al as doing this would permit the sliding characteristics of the pad to be altered to the specific needs of various disk drives. No unobvious result is seen in changing the shape of the pad of Brezoczky et al when viewed with the teachings of Fukuoka et al, as each of the V-shape, U-shape, parabolic shape, and hyperbolic shapes all would permit contact with the disk during operation.

Secondly, with regard to the wide part of the pad being spaced from the trailing edge of the pad, the Examiner takes Official notice that it is old and well known in the art to space the trailing edge of a slider pad from the trailing edge. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to space the pad from the trailing

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edge as doing this would decrease the amount of contact between the disk and pad, thus creating less friction and wear therebetween.

12. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brezoczky et al in view of Kubo et al (US Pat 4901185). Brezoczky et al shows a V-shaped slider/pad in Figure 5 that contacts the recording disk during reading/writing. However, Brezoczky et al does not show the leading edge of the pad being spaced from the leading edge of the slider. Kubo et al shows a contact slider in Figure 10 that has a leading edge of a pad 104 spaced from a leading edge of the slider body due to the tapered portion 40. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a taper to the pad of Brezoczky et al in order to space the leading edge of the pad from the leading edge of the slider as taught by Kubo et al. The rationale is as follows: one of ordinary skill in the art would have been motivated to taper the leading edge of Brezoczky et al's pad as doing this would permit less contact area between the pad and disk, thereby creating less friction and wear between the pad and disk.

13. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brezoczky et al in view of Kubo et al as applied to claim 27 above, and further in view of Fukuoka et al. Brezoczky et al shows a V-shaped slider/pad in Figure 5 that contacts the recording disk during reading/writing while Kubo et al shows the pad spaced from the leading edge of the slider. However, neither Brezoczky et al nor Kubo et al shows the trailing edge of the slider being the trailing edge of the pad while also not showing width of the leading edge of the

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slider being the same as the width of the trailing edge of the slider. Fukuoka et al shows a slider 1 with a U-shaped pad in Figure 7 wherein the trailing edge of the pad is the trailing edge of the slider. The width of the leading edge of the slider is identical to the width of the trailing edge of the slider. Therefore, with regard to the trailing edge of the pad being the trailing edge of the slider, it would have been obvious to one of ordinary skill in the art at the time the invention was made to move the transducer of Brezoczky et al from the trailing edge of the slider to somewhere in the middle of the pad as performed by Fukuoka et al, thereby making the trailing edge of the slider the trailing edge of the pad. The rationale is as follows: one of ordinary skill in the art would have been motivated to make the trailing edge of the slider the trailing edge of the pad as doing this would remove the transducer from the exposed trailing edge of the slider and move it to a more protected area within the pad, thus decreasing the amount of potential damage to the transducer from collisions.

With regard to the widths of the trailing and leading edges of the slider being the same, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the widths of the slider in Brezoczky et al the same as taught by Fukuoka et al. The rationale is as follows: one of ordinary skill in the art would have been motivated make the widths of the leading and trailing edges of the slider the same as doing this would simplify the manufacturing process by permitting the slider bodies to be cut into simple blocks from a single wafer, thus eliminating the need for more complex diagonal cuts of the wafer as would be the case in the Brezoczky et al slider.

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14. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brezoczky et al in view of Kubo et al as applied to claim 27 above, and further in view of Saitoh et al (US Pat 4926274). Brezoczky et al shows a V-shaped slider/pad in Figure 5 that contacts the recording disk during reading/writing while Kubo et al shows a tapered pad. However, neither Brezoczky et al nor Kubo et al shows the distance between the leading edge of the pad and the trailing edge of the slider being substantially less than a distance between the leading edge of the pad and the leading edge of the slider as recited in claim 30. Saitoh et al shows a slider pad in Figure 1 that shows the distance between the leading edge of the pad 7 and the trailing edge of the slider being substantially less than a distance between the leading edge of the pad 7 and the leading edge of the slider. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the distance between the leading edge of the pad and the trailing edge of the slider being substantially less than a distance between the leading edge of the pad and the leading edge of the slider as taught by Saitoh et al as doing this would again permit less area of the pad to contact the disk during operation, thus decreasing the amount of friction and wear that occurs between the disk and slider.

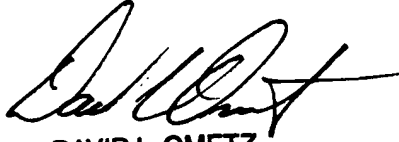
15. Applicant's arguments (submitted 1/26/2000) with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fujiwara et al, Cunningham, and Matsuura et al all show magnetic head sliders with various pad designs.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Ometz whose telephone number is (703) 308-1296.

DLO
December 1, 2000



DAVID L. OMETZ
PRIMARY EXAMINER